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Dec 11th, 12:00 AM

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Duffy, Michael, "Estimating Costs of Crop Production in 2009" (2008). *Proceedings of the Integrated Crop Management Conference*. 18.
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Estimating costs of crop production for 2009

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Introduction

Estimating costs of production for 2009 will be extremely difficult. Some farmers have received forwarding pricing, some set a quantity only and still others will use the spot market. The price consequences of these decisions are substantial.

Foreign competition for material, the current U.S. financial crises, the energy price situation and a host of other factors compound estimation problems for Iowa farmers. In these times it is easy to simply say it can't be done with any accuracy so why bother trying it.

Such thoughts are understandable but it is precisely times of uncertainty when estimating the costs of production is the most crucial. Farmers need an estimate of costs for cash flow planning purposes. Credit markets have tightened considerably and working with a lender having a clear understanding of credit needs will aid in securing credit for 2009.

Farmers need to know their costs of production when they establish their marketing plan. Based on USDA monthly price reports for Iowa, corn prices have dropped 22 percent from July through mid October and soybean prices have dropped 27 percent over the same time period. Farmers need to know their costs of production in such volatile times if they are going to be able to follow a sound marketing plan. The old saying is you won't go broke locking in a profit but you do locking in a loss. Without knowing costs of production the farmer can't tell.

Input markets for just about all inputs have soared as commodity prices increased. Farmers need to know their costs of production so they can tell where to concentrate for trimming costs of production. Too often in such times the strategy is simply cutting back but this can do more harm than good if cuts are made in the wrong area. Time should be spent concentrating on where costs are out of line rather than areas where costs are more reasonable with respect to averages.

It is easy to say that costs can't be estimated in this environment so why bother. But, this type of environment is exactly the time when estimates are crucial.

Estimated costs for 2009

Diesel fuel costs show considerable volatility. Current reported fuel prices are down 25 percent from just a month ago and down 28 percent from the highest reported. Yet, they are only down one percent from a year ago.

Where the prices will go over the next several months is subject to debate. What isn't debated too widely is that they will continue to trend upward. Farmers are well advised to continue to find ways to cut machinery costs. Evaluating trips, keeping power units tuned, and proper tire inflation are just some of the ways to reduce diesel use. Of course, when replacing machinery energy efficiency needs to be a consideration.

Reported seed costs showed considerable variation this year. The biggest difference was the traits contained in the seed but even when comparing similar traits, reported seed prices varied widely

depending upon the source. Differences of up to 30 percent were not uncommon.

The seed industry continues to change. Concentration in the industry will reduce competition which will increase prices. But, the traits and combination of traits being offered seems to continue to increase almost exponentially.

Farmers need to carefully evaluate seed selection and planting rates. The standard evaluations for yield, standability, moisture at harvest and so forth are all still important. But, with the new traits and multiple stacks farmers need to carefully consider if the trait being offered is one they need or will benefit from having.

Seeding rates are also important. Research reported in the Iowa State University ICM newsletter suggests that higher seeding rates more be advantageous in some cases. The maximum profit rule of using an input to the point of diminishing marginal return is very important to remember. Expected output prices and seed costs will determine the optimum seeding rates.

Costs for fertilizers have soared in the past few years. Based on data from the Iowa Farm Business Association, fertilizer and lime costs per acre for corn have increased by 64 percent in just the past 5 years. Costs for 2008 and estimated costs for 2009 will be even higher. Estimating fertilizer costs has become increasingly difficult as prices change within the season and different payment regimes are initiated.

World competition for plant nutrients has led to the increase in prices. So, too, has the increased concentration in the industry. With fewer manufactures prices are more closely tied to output prices. In addition, costs for storage can be pushed further down to the final user, increasing costs and changing terms of sale for farmers.

Current prices are projected to remain steady for N and P but uncertain for K. There should be some reduction in prices as the lower priced material works its way into the world market and the higher priced material is sold.

Farmers need to follow sound agronomic practices as they assess their situation in the new environment. Proper soil tests are more important than ever. New tools are developed to help determine proper application rates with different input and output price combinations. Staying up-to-date with the latest agronomic recommendations is essential.

Pest management is another area where costs have increased considerably. Projections for 2009 for at least one of the more popular herbicides are for almost a doubling in price. Data from the Iowa Farm Business Association shows that herbicide costs per acre for soybeans and corn have been flat to drifting downward. This appears to be over starting in 2009.

Cash rent for 2009 is projected to be up but the amount of increase will vary considerably based on conditions and the quality of the land. Average rents are projected to increase by eight percent over 2008 levels but, again, this will vary considerably.

Cash rents will follow land values. Land values, in turn, are dependant upon the income that can be earned. Decreased commodity prices and higher input costs will lower returns and should lead to lower rents.

The average rent per acre has increased by almost 30 percent in the past 3 years. Farmers need to try and work with landlords to develop flexible leases. With rapidly rising and volatile costs and changing markets this is especially important. A landlord may want a fixed amount but be

willing to share above that certain price. Flex features can be worked out between the tenant and landlord.

Taking all these uncertainties into account the preliminary estimated costs of production of Iowa State University for continuous corn are \$5.63, \$5.30, and \$5.03 per bushel. This assumes an average yield of 125, 145, and 165 bushels per acre, respectively. For the average yield, the 2009 estimated costs are 28 percent higher than last year for continuous corn. They are 73 percent higher than 5 years ago.

The estimated costs of production per bushel for corn following soybeans are; \$4.59, \$4.42 and \$4.30 assuming 140, 160, and 180 bushels per acre, respectively. These cost estimates are, for average yield, 27 percent higher than last year's estimate and 72 percent higher than the 2004 estimated costs.

Cost of production estimates, per bushel, for soybeans are; \$10.41, \$10.11 and \$9.94 assuming 45, 50 and 55 bushels per acre. The average estimate is 29 percent higher than a year ago and 54 percent higher than the estimated costs 5 years ago.

For corn, land represents approximately 30 percent of the total costs of production. This assumed \$178, \$205, and \$232 per acre rent charges for the low, medium and high quality land. The variable costs represent almost 60 percent of the costs of production. Of the variable costs, nitrogen and seed costs are almost half the costs for either continuous or rotated corn. Nitrogen was charged at \$.75 per pound and seed was assumed to cost \$250 per bag.

Land represents just over 40 percent of the costs of production for soybeans. While the variable costs represent 44 percent. Seed and potassium are almost half of the variable costs. Phosphorus was charged at \$.94 per pound and potassium at \$.75 per pound.

Changing seed prices by 20 percent causes approximately a 3 percent change in the cost per bushel for corn. A 13 percent change in the price per pound of nitrogen causes a 2.5 percent and 2 percent change in the costs of production per bushel for continuous corn and rotated corn, respectively.

If we assume that the cash rent charge did not change from last year, a 5 percent decrease in what was used for the average yield, then the costs of production per bushel would decrease by 1.9 percent, 2 percent and 3 percent for continuous corn, rotated corn, and soybeans, respectively. However, if we assume that rents increase by 21 percent from 2008s estimated average level, then costs per bushel would increase 5 percent 6 percent, and 8 percent for continuous corn, rotated corn, and soybeans, respectively.

Conclusions

Costs of production will be up considerably for Iowa farmers. By how much will depend on individual circumstances and the validity of the assumptions that need to be made. The average costs, per bushel, are estimated to be approximately 30 percent higher than last year. And, over 70 percent higher for corn and over 50 percent higher for soybeans, than the estimated costs just 5 years ago.

Farmers need to be prepared for volatility in prices and commodity prices. Risk management is going to take on a new meaning and urgency in the years ahead. In some cases the wild gyrations

of the past few years will settle out but for the most part this will be at a higher level. For most of our inputs, however, fluctuations caused by increased world competition, increasing industry concentration, fluctuating energy costs and other factors will continue.

The recent energy related boom in for agriculture has faded. When and if it will return are being debated. But, one thing is clear, Iowa farmers have to start preparing for rapid fluctuations in input and output prices.

The outlook for 2009 isn't especially bright currently. Commodity prices are down almost a fourth from recent highs and input costs are estimated to be almost the same percentage higher in 2009. It is easy to get discouraged and neglect sound business practices in such times. But, now is the time when we need to know our costs. Average estimates and estimates from other farms can be good guidelines but nothing substitutes from knowing our costs of production. Remember that over the past 40 years there as only been 1 year when the top third farms in the Iowa Farm Business association didn't make money. Somebody is always making money in Iowa agriculture.